

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 June 2005 (09.06.2005)

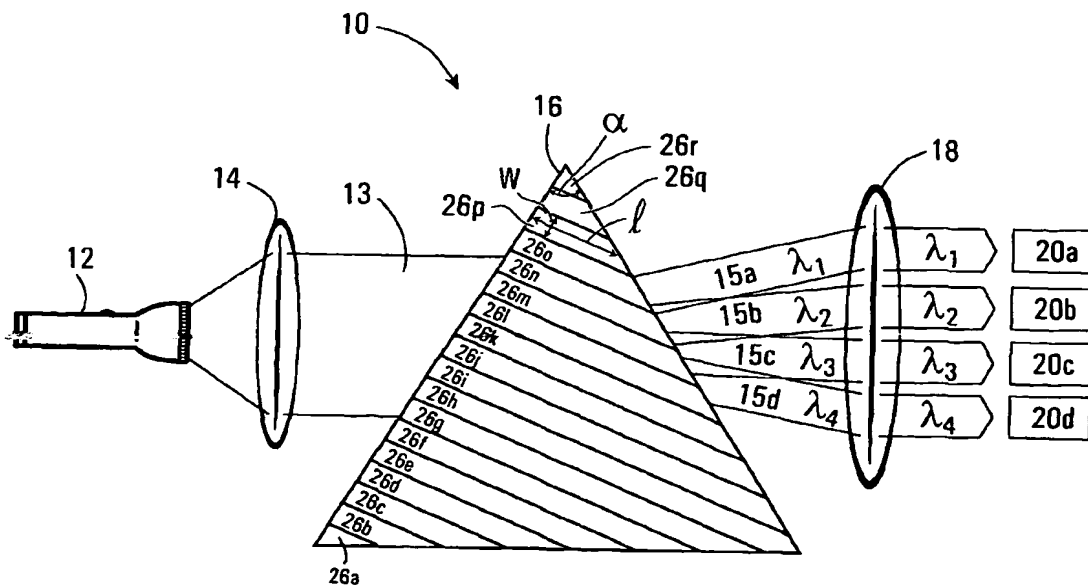
PCT

(10) International Publication Number
WO 2005/052662 A1

- (51) International Patent Classification⁷: **G02B 6/293**, H04J 14/02, G02B 5/30
- (74) Agent: **SMART & BIGGAR**; 1000 De La Gauchetiere Street West, Suite 3300, Montreal, Quebec H3B 4W5 (CA).
- (21) International Application Number: **PCT/CA2004/002045**
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date:
26 November 2004 (26.11.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/525,119 28 November 2003 (28.11.2003) US
- (71) Applicant (for all designated States except US): **MCGILL UNIVERSITY** [CA/CA]; Office of Technology Transfer, 3550 University Street, Montreal, Quebec H3A 2A7 (CA).
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **KIRK, Andrew** [CA/CA]; 5324 Hutchison, Outremont, Quebec H2V 4B3 (CA).

[Continued on next page]

(54) Title: **WAVELENGTH MULTIPLEXER/DEMULTIPLEXER COMPRISING AN OPTICALLY DISPERSIVE STRATIFIED BODY**



(57) Abstract: The present invention provides a wavelength multiplexer/demultiplexer comprising a plurality of regions of optically permissive material. The plurality of regions are disposed adjacent one another in a side by side relationship in order to define a stratified body. The materials in adjacent regions have differing indexes of refraction. The stratified body has a first surface and a second surface that are positioned in a non-parallel relationship with respect to one another. The first surface is a light-receiving surface, and the second surface is a light-exiting surface.



Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.